

Amendment under 37 CFR §1.116
Attorney Docket No.: 042564
Application No.: 10/501,092

REMARKS

Claims 1 and 3-9 are pending in the present application. Claim 1 is herein amended.
Claim 2 is herein cancelled. Claim 9 is newly added. No new matter has been entered.

Claim Rejections - 35 U.S.C. § 102

Claims 1-8 were rejected under 35 U.S.C. § 102(b) as being anticipated by **Majima** (WO 01/092417 as evidenced by U.S. 6,780,482, which is used as an Equivalent English document).

Favorable reconsideration is requested.

A film having a half value width of not more than 0.22 is afforded when polyester A (PET) and polyester B (PBT, PTT) are “crudely mixed” where they are dispersed in relatively large crystal phases. Claim 1 is directed to a film having a half value width of not more than 0.22, and that simultaneously achieves high levels of anti-whitening property (whitening resistance) and scratch resistance, as compared to the prior art.

An organic phosphorous compound is essential for suppressing compatibility (ester exchangeability) of polyester A and polyester B which prevents polyester A and polyester B from being “crudely mixed.” However, a film having a half value width of not more than 0.22 cannot be produced merely by adding an organic phosphorus compound. It is also necessary to set the compression ratio of an extruder used for mixing molten polyester A and polyester B to 1.1-3.8 (preferably 1.3-3.0) in order to “crudely mix” polyester A and polyester B. In Example 3 (now Comparative Example), the conditions of the extruder other than the compression ratio are almost the same as those in Example 1, but the compression ratio is 4.0. Consequently, the half value width is 0.24.

The mixing ratio of polyester A and polyester B is not limited to 40/60. In Example 7, the mixing ratio of polyester A and polyester B is 85/15, and in Example 8, it is 20/80. In Examples 7 and 8, the conditions other than the mixing ratio of polyester A and polyester B are the same as in Example 1, and the half value width is 0.12 and 0.19, respectively.

A. Claims 1-6

Applicant respectfully submits that Majima does not disclose, either expressly or inherently, a film showing “a half value width of recrystallization peak obtained by a differential scanning calorimeter (DSC) by lowering temperature of not more than 0.22” as recited in claim 1.

In the Amendment dated September 19, 2008 at pages 5-8 Applicant previously pointed out that this feature is not inherent in Majima as supported in the Examples and Comparative Examples in the specification. Some of the Examples in which separate extruders were used resulted in half value widths less than 0.22. (*See* Examples 1, 2, 4, 5, 7, 8 and 11.) However, Examples 3, 9, 10 and Comparative Example 1 demonstrate that even when separate extruders are used, the resulting half value widths can be greater than 0.22 and that the number of extruders is not determinative on whether the half value width will satisfy the requirements of claim 1. (*See* Tables 1 and 2.)

In response, the Office Action on pages 2-3 provides three reasons for maintaining the rejection of the claims:

(1) The Office Action compares Example 1 and Comparative Example 1 of the specification and concludes that for a PET/silica and PBT/phosphorous 40/60 mixture processed at a compression ratio of 1.5, a temperature less than 285°C is required for satisfying the half

value width as recited in the claims. The Office Action takes the position that Majima satisfies the composition and temperature requirement.

The comparison of Example 1 and Comparative Example 1 demonstrates that the half value width depends on temperature, and that the half value width property is not inherent simply by satisfying the recited composition. In other words, the half value width property is a separate limitation from the composition and depends on the processing of the composition.

The Office Action acknowledges that Majima is silent about compression ratio. (Office Action, page 2.) However, the Office Action does not address the fact that the half value width depends on the compression ratio. Since the half value width depends on compression ratio as explained in the present specification, Majima is silent about compression, and evidence has been submitted demonstrating that Majima does not necessarily satisfy the recited half value width, Majima does not inherently satisfy the half value width.

(2) The Office Action compares Example 1 to Example 3 and concludes that for a PET/silica and PBT/phosphorous 40/60 mixture processed at a temperature of 260°C, the compression ratio must be less than 4.0 for satisfying the half value width as recited in the claims. (Office Action, page 2.) The Office Action acknowledges that Majima is silent about compression ratio. But the Office Action takes the position that this result is not commensurate in scope with the claims since the claims allow for any crystalline polyester and do not require silica and phosphorous. The Office Action further requires data demonstrating non-inherency throughout the entire scope of the claim. (Office Action, page 2.)

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Applicant respectfully submits that there is no requirement to demonstrate non-inherency throughout the entire scope of the claim. When relying on inherency, the Patent Office “must make clear that the missing descriptive matter is necessarily present in the thing described *in the reference*, and that it would be so recognized by persons of ordinary skill.” MPEP § 2112(IV) citing *In re Robertson*, 169 F.3d 743, 745, (Fed. Cir. 1999) (emphasis added). A *prima facie* case based in part on inherency can be rebutted “by evidence showing that the *prior art products* do not necessarily possess the characteristics of the claimed product.” MPEP § 2112.01(I) citing *In re Best*, 562 F.2d at 1255 (Fed. Cir. 1985). Thus, Applicant has to demonstrate that the prior art reference does not necessarily possess the alleged inherent feature. There is no requirement to demonstrate non-inherency throughout the entire scope of the claim.

To rebut the Office Action’s allegation of inherency in Majima, Applicant has provided evidence demonstrating that films in Majima do not necessarily possess the recited half value width. A declaration was submitted on December 19, 2007 demonstrating that the half value width property is not inherent even if the compositional limitations are otherwise satisfied, and that when using a conventional extruder for processing a PET film, the composition in Majima itself does not possess the recited half value width.

Furthermore, regarding the silica and phosphorous additives, the cited Examples and Comparative Examples demonstrate that silica and phosphorous additives are not determinative components for satisfying the recited half value width. All of the Examples and Comparative Examples cited by the Examiner (Examples 1, 3 9 and Comparative Example 1) use silica and phosphorous additives. Thus, the cited Examples and Comparative Examples highlight the

effects of temperature and compression ratio on the half value width, while keeping the effects of additives constant.

Therefore, contrary to the assertion in the Office Action, Applicant is not required to demonstrate non-inherency throughout the entire scope of the claim; Applicant is only required to demonstrate that the prior art reference does not necessarily possess the alleged inherent feature. And Applicant has provided evidence demonstrating that the half value width is not necessarily satisfied in Majima.

(3) The Office Action states that Example 9 has the same processing conditions as in Examples 1 and 3 in that the temperature was 260°C and the compression ratio was 1.5. It appears that the Office Action intended to cite Comparative Example 1. The Office Action further states that Example 9 uses PHT instead of PBT with a mixing ratio of 90/10 and that this results in a half value width of 0.23 which is outside of the claimed range. The Office Action concludes that this demonstrates that the claims do not always result in the claimed half value width. (Office Action, page 2.)

Applicant notes that claim 1 has been amended to limit polyester B to PBT and PTT. Thus, Example 9 using PHT is not within the scope of the amended claims.

B. Claims 7 and 8

Applicant previously pointed out that Majima does not teach a film having the properties of a film produced under the conditions recited in these claims, *e.g.*, a half value width of recrystallization peak of not more than 0.22.

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In response, the Office Action states that these claims are product-by-process claims and that the Examiner cannot properly ascertain whether a different product is produced for the entire scope of the claims since all of the Examples of the specification include both silica and phosphorous. (Office Action, page 3.)

However, claims 7 and 8 do not exclude the use of additives, *e.g.*, phosphorous and silica. Furthermore, as stated above, the cited Examples and Comparative Examples demonstrate that silica and phosphorous additives are not determinative components for satisfying the recited half value width. In all of the cited examples, (Examples 1, 3, 9 and Comparative Example 1), silica and phosphorous are used which highlights the effects of temperature and compression ratio on the half value width.

Additionally Cited Reference

The Office Action cites Masuda (US 5,153,302) for teaching compression ratios and L/D values. (Office Action, page 3.)

Masuda discloses suppressing the heat decomposition of poly-1,4-cyclohexanedimethyleneterephthalate (PCT), and uses an extruder having a compression ratio of 1.5-2.3 and L/D of 20-28. The reference does not describe mixing two kinds of polyesters to form a film or the problem of whitening of the film, and would not have been obvious to combine with Majima.

For at least the foregoing reasons, claims 1 and 3-9 are patentable over the cited references. Accordingly, withdrawal of the rejection of claims 1 and 3-9 is hereby solicited.

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In view of the aforementioned amendments and accompanying remarks, Applicant submits that the claims, as herein amended, are in condition for allowance. Applicant requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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